



► Hunting Island State Park Groin | Hunting Island State Park, SC | Jan 2020

Project Partners:

Contractor: SJ Hamill Construction Company

Engineer: Coastal Science & Engineering Inc

Owner: South Carolina Department of Parks,
Recreation & Tourism

Max Depth:

14 ft 4.2 m

Length:

Two 450 LF. Groins, 900 LF. total
(2) 137.1 m, 274.3 m total

Products:

UltraComposite™ UC-95



Background

Hunting Island, a barrier island off South Carolina, has one of the highest erosion rates along the U.S. coastlines. The 5,000-acre park stretches across five miles of beach and encompasses marsh and maritime forests. It is one of the state's most popular parks with more than 1 million visitors a year. Four existing steel sheet pile groins, installed in 2007, required maintenance and a new solution due to severe corrosion and decay.

Water Control



Why CMI

South Carolina Department of Parks, Recreation & Tourism (SCPRT) and Coastal Science & Engineering Inc. (CSE) needed a sheet pile material with more longevity than steel but with similar strength properties. Due to these requirements, CSE specified UltraComposite™ UC-95 FRP sheet pile for the project. CSE specified UC-95 in 2017 for the Edisto Beach Groin project, aiding to their confidence in UC-95 for the Hunting Island State Park groin. UC-95 is the strongest FRP sheet pile available on the market. It can resist corrosion in harsh saltwater environments in addition to its low weight to strength ratio, drivability, and width.



Installation

UltraComposite UC-95 sheet pile was installed in two months due to a strict schedule set to finish before the start of turtle nesting season. Simultaneously, the Beach Nourishment Project was underway. Using an excavator-mounted vibratory hammer, UC-95 sheets were driven in pairs covering 5 ft of wall. A pre-formed concrete cap was then installed. Post project completion, rock mattresses and SCDOT Class F Armor Stone were set on both sides of installed sheet pile.



Performance

In conjunction with this project, the beach nourishment project began pumping sand in Feb 2020, covering majority of the groin structure. "Sand replenishment is the latest phase in a larger, long-planned project to restore the park, including its beaches and iconic lighthouse, after Hurricane Matthew decimated it in 2016 and Tropical Storm Irma followed a year later." Lana Ferguson, islandpacket.com (follow her on twitter). "The amount of sand to be added will be the most since 1980, when 1.4 million cubic yards were used, The Island Packet previously reported."

Resources: <https://www.islandpacket.com/news/local/article239945788.html>